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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WILLIAMS, KEVIN D

ART UNIT PAPER NUMBER

2854

DATE MAILED: 01/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

10/016,746

Applicant(s)

SUNADA ET AL

Examin r

Kevin D. Williams

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MW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27 and 29-46 is/are rejected.
- 7) ☒ Claim(s) 28 and 47-50 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 28 and 29 are objected to because of the following informalities:

In claim 28, lines 1 and 3, claim 29, line 1, and claim 37, line 11, the limitation "the distance" lacks proper antecedent basis in the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 27, 30, 32, 35-41, and 44-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Murayama (EP 0816107 A2).

With respect to claims 27, 30, 32, 35, and 36, Murayama teaches a media handling system comprising a pick roller structure SF configured to selectively contact and pick a media sheet from an input source, a drive roller structure 2,3 spaced from the pick roller structure, a first guide structure 80a longitudinally extending continuously from the pick roller structure to the drive roller structure (Fig. 1), a second guide structure 80b longitudinally extending between the pick roller structure and the drive roller structure to define a media path between first and second guide structures, the

media path defining a media entrance (Fig. 1) adjacent the pick roller structure and a media exit (Fig. 1) adjacent the drive roller structure, where the media path constrains the movement of a trailing edge of the media sheet as the trailing edge leaves the pick roller structure to minimize trailing edge print defects, the pick roller structure including a plurality of spaced pick roller wheels 20, the pick roller structure being configured to pick the media sheet from the input source in a first direction and to rotate the media sheet such that the media sheet exits the pick roller structure traveling in a second direction (Figs. 9 and 10), the first 80a and second 80b guide structures each linearly extend between the pick roller structure and the drive roller structure, where the first 80a and second 80b guide structures are positioned with respect to the pick roller structure such that the media sheet exits the pick roller directly into the media path (Fig. 1).

With respect to claims 37-41, and 44-46, Murayama, teaches a media handling system comprising a pick roller structure SF configured to selectively contact and pick a media sheet from an input source, a drive roller structure 2,3 spaced from the pick roller structure, a first guide structure 80b longitudinally extending between the pick roller structure and the drive roller structure, a second guide structure 80a longitudinally extending between the pick roller structure and the drive roller structure spaced from the first guide structure to define a media path between first and second guide structures, where the media sheet exits the pick roller in the media path, the distance between the first and second guide structures constraining the movement of a trailing edge of the media sheet as the trailing edge leaves the pick roller structure to minimize trailing edge print defects, the first guide structure 80b defining a continuous surface extending

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entirely between the pick roller structure and the drive roller structure for supporting the media sheet, the second guide structure 80a defines a continuous surface extending between the pick roller structure and the drive roller structure, the first 80b and second 80a guide surfaces each linearly extend between the pick roller structure and the drive roller structure, the pick roller structure being configured to pick the media sheet from the input source in a first direction and to rotate the media sheet such that the media sheet exits the pick roller structure traveling in a second direction (Figs. 9 and 10), the second guide structure 80a extends at least partially over the drive roller structure, the pick roller structure defining an outer roller surface 20 that interacts with the media sheet, the first guide structure 80b defining a first guide surface that interacts with the media sheet, and the first guide surface being contiguously positioned with respect to the outer roller surface 20, where the first guide structure 80b is positioned with respect to the pick roller structure to continuously support the media sheet as the media sheet exits the pick roller structure and enters the media path.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murayama.

Murayama teaches the claimed invention except for the distance between the first and second guides being in the range of between 0.5mm and 5mm.

Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges. See MPEP 2144.05 (II)(A). Here the prior art discloses the structure claimed and therefore it would have been obvious to find the optimum ranges of the distance between the first and second guide structures.

6. Claims 31, 33, 34, 42, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murayama in view of Walker (US 5,940,106).

Murayama teaches the claimed invention except for a plurality of pinch wheels corresponding with the plurality of pick roller wheels, each of the plurality of pinch wheels corresponding with and positioned with respect to a corresponding pick roller wheel to create a nip between the respective pick roller wheel and the pinch wheel, the second guide structure being arranged to constrain and support the media sheet at regions between the nips to reduce stress exerted on the media sheet at the nips, the first direction in which the media sheet is picked from the input source being opposite to the second direction in which the sheet exits the pick roller structure, and an input guide corresponding with the pick roller structure to guide the media sheet at least partially around the pick roller structure.

Walker teaches a plurality of pinch wheels 72 corresponding with a plurality of pick roller wheels 70, each of the plurality of pinch wheels 72 corresponding with and positioned with respect to a corresponding pick roller wheel 70 to create a nip between

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the respective pick roller wheel and the pinch wheel, a first direction (at 92 in Fig. 3) in which the media sheet is picked from an input source being opposite to a second direction (at 96 in Fig. 3) in which the sheet exits the pick roller structure, and an input guide 78 corresponding with the pick roller structure to guide a media sheet at least partially around the pick roller structure. The resulting combination of Murayama and Walker would also disclose a second guide structure being arranged to constrain and support the media sheet at regions between the nips to reduce stress exerted on the media sheet at the nips.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Murayama to have the pick/pinch roller structure as taught by Walker, in order to reliably feed one sheet at a time from the input source.

Allowable Subject Matter

7. Claim 28 would be allowable if rewritten to overcome the objections set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 47-50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for the indication of the allowability of claim 28 is the limitation of a first guide structure longitudinally extending continuously from the pick roller structure to the drive roller structure, a second guide structure longitudinally extending between the pick roller structure and the drive roller structure, where the distance between the first and second guide structures being greater at the media exit than at the media entrance, in combination with the other claimed structure.

The primary reason for the indication of the allowability of claim 47 is the limitation of a first guide structure longitudinally extending between the pick roller structure and the drive roller structure, a second guide structure longitudinally extending between the pick roller structure and the drive roller structure, the media sheet exiting the pick roller in the media path, the media path forming a media entrance abutting the pick roller structure and a media exit adjacent the drive roller structure, where the first guide structure is spaced from the second guide structure a greater distance at the media exit than at the media entrance, in combination with the other claimed structure.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin D. Williams whose telephone number is (703) 305-3036. The examiner can normally be reached on Monday - Friday, 8:30am - 6:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H. Hirshfeld can be reached on (703) 305-6619. The fax phone

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number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

KDW
January 10, 2004



ANDREW H. HIRSHFELD
SUPERVISORY PATENT EXAMINER
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